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Substituted for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets necessary)			COMPLETE IF KNOWN	
SHEET 1 OF 4			Application Number	09/929,295
			Filing Date	August 13, 2001
			First Named Inventor	Ho et al.
			Group Art Unit	2621
			Examiner Name	Unknown
			Docket Number	EYEM1360

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U.S. PATENT DOCUMENTS


Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (If known)			
R	1	4,725,824		Yoshioka	02/16/88	
R	2	4,805,224		Koezuka et al	02/14/89	
R	3	4,827,413		Baldwin et al.	05/02/89	
R	4	5,159,647		Burt	10/1992	
R	5	5,168,529		Peregrin et al	12/01/92	
R	6	5,187,574		Kosemura et al.	02/16/93	
R	7	5,220,441		Gerstenberger	06/15/93	
R	8	5,280,530		Trew et al	01/1994	
R	9	5,333,165		Sun	07/26/94	
R	10	5,383,013		Cox	01/17/95	
R	11	5,430,809		Tomitaka	07/04/95	
R	12	5,432,712		Chan	07/11/95	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (If known)				
R	13	DE	4406020	C1				No
R	14	EP	0807902	A2	Cyberclass Limited	11/1997		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ⁶
R	15	International Search Report for PCT/US99/07935	
R	16	Akimoto, T., et al., "Automatic Creation of Facial 3D Models", IEEE Computer Graphics & Apps., pp.16-22, Sept. 1993.	
R	17	Ayache, N. et al., "Rectification of Images for Binocular and Trinocular Stereovision", Proc. Of 9th Int'l. Conference on Pattern Recognition, 1, pp. 11-16, Italy, 1988.	
R	18	Belhumeur, P., "A Bayesian Approach to Binocular Stereopsis", Int'l. J. Of Computer Vision, 19 (3), Pp.237-260, 1996.	
R	19	Beymer, D. J., "Face Recognition Under Varying Pose", MIT A.I. Lab, Memo No. 1461, pp. 1-13, 12/93.	
R	20	Beymer, D.J., "Face Recognition Under Varying Pose", MIT A.I. Lab. Research Report, 1994, pp. 756-761.	
R	21	Buhmann, J. et al., "Distortion Invariant Object Recognition By Matching Hierarchically Labeled Graphs", In Proceedings IJCNN Int'l Conf. Of Neural Networks, Washington, D.C. June 1989, pp. 155-159.	
R	22	DeCarlo, D., et al., "The integration of Optical Flow and Deformable Models with Applications to Human Face Shape and Motion Estimation", pp. 1-15, In Proc. CVPR '96, pp. 231-238 (published) [TM 18.9.96].	
R	23	Devemay, F. et al., "Computing Differential Properties of 3-D Shapes from Stereoscopic Images without {3-D} Models", INRIA, RR-2304, pp. 1-28, Sophia, Antipolis, 1994.	
R	24	Dhond, U., "Structure from Stereo: a Review", IEEE Transactions on Systems, Man, and Cybernetics, 19(6), pp.1489-1510, 1989.	

Examiner Signature		Date Considered	5/27/04
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PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-003

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SHEET 2 OF 4

Application Number 09/929,295
Filing Date August 13, 2001
First Named Inventor Ho et al.
Group Art Unit 2621
Examiner Name Unknown
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		Number	Kind Code ² (If known)			
X	25	5,511,153		Azarbayejani et al.	04/23/96	
X	26	5,533,177		Wirtz et al.	07/02/96	
X	27	5,550,928		Lu et al.	08/1996	
X	28	5,581,625		Connell	12/1996	
X	29	5,588,033		Yeung	12/24/96	
X	30	5,680,487		Markandey	10/21/97	
X	31	5,699,449		Javidi	12/16/97	
X	32	5,714,997		Anderson	02/03/98	
X	33	5,715,325		Bang et al.	02/03/98	
X	34	5,719,954		Onda	02/17/98	
X	35	5,736,982		Suzuki et al.	04/07/98	
X	36	5,764,803		Jacquin et al.	06/09/98	
X	37	5,774,591		Black et al.	06/30/98	
X	38	5,802,220		Black et al.	09/1998	
X	39	5,809,171		Neff et al.	09/15/98	
X	40	5,828,769		Bums	10/27/98	
X	41	5,917,937		Szeliski et al.	06/1999	
X	42	5,982,853		Liebermann	11/1999	
X	43	5,995,119		Cosatto et al.	11/30/99	
X	44	6,044,168		Tuceryan et al.	03/2000	
X	45	6,052,123		Lection et al.	04/2000	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ⁶
X	46	Fleet, D.J., et al., "Computation of Component Image Velocity from Local Phase Information", <i>Int. J. Of Computer Vision</i> , 5:1, pp. 77-104 (1990).	
X	47	Fleet, D.J., et al. <u>Measurement of Image Velocity</u> , Kluwer Academic Press, Boston, pp. 1-203, 1992.	
X	48	Hall, E.L., "Computer Image Processing And Recognition", Academic Press 1979, 99. 468-484.	
X	49	Hong, H., et al., "Online Facial Recognition based on Personalized Gallery", <i>Proceedings of Int'l Conference On Automatic Face And Gesture Recognition</i> , pp. 1-6, Japan April 1997	
X	50	Kolocsai, P., et al., "Statistical Analysis of Gabor-Filter Representation, <i>Proceedings of International Conference on Automatic Face and Gesture Recognition</i> , 1997, 4 pp.	
X	51	Kruger, N., "Visual Learning with a priori Constraints", <i>Shaker Verlag</i> , Aachen, Germany, 1998, pp. 1-131.	
X	52	Kruger, N., et al., "Principles of Cortical Processing Applied to and Motivated by Artificial Object Recognition", <i>Institut fur Neuroinformatik, Internal Report 97-17</i> , Oct. 97, pp. 1-12.	
X	53	Kruger, N., et al., "Autonomous Learning of Object Representations Utilizing Self-Controlled Movements", 1998, <i>Proceedings of NN98</i> , 5 pp.	

Examiner Signature

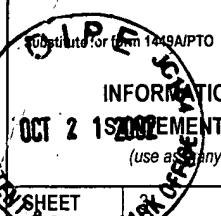
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		First Named Inventor	Ho et al.	
		Group Art Unit	2621	Technology Center 2600
		Examiner Name	Unknown	
SHEET 2 OF 4	Docket Number	EYEM1360		

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X	54	Kruger, N., et al, "Object Recognition with a Sparse and Autonomously Learned Representation Based on Banana Wavelets", <i>Internal Report 96-17</i> , Institut fur Neuroinformatik, Dec. 96, pp. 1-24.	
X	55	Kruger, N., et al, "Object Recognition with Banana Wavelets", <i>European Symposium on Artificial Neural Networks (ESANN97)</i> , 1997, 6 pp.	
X	56	Kruger, N., "An Algorithm for the Learning of Weights in Discrimination Functions Using <i>a priori</i> Constraints", <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , Vol. 19, No. 7, July 1997, pp. 764-768.	
X	57	Lades, M., et al, "Distortion Invariant Object Recognition in the Dynamic Link Architecture", <i>IEEE Transactions on Computers</i> , Vol. 42, No. 3, 1993, 11 pp.	
X	58	Luong, Q. T., et al, "The Fundamental Matrix, Theory, Algorithm, and Stability Analysis", <i>INRIA</i> , 1993, pp. 1-46.	
X	59	Manjunath, B. S., et al, "A Feature Based Approach to Face Recognition", <i>In Proceedings IEEE Conference on Computer Vision and Pattern Recognition</i> , pp. 373-378, 3/92.	
X	60	Mauer, T., et al, "Single-View Based Recognition of Faces Rotated in Depth", <i>In Proceedings of the International Workshop on Automatic Face and Gesture Recognition</i> , pp. 248-253, Zurich, CH, June 26, 1995.	
X	61	Mauer, T., et al, "Learning Feature Transformations to Recognize Faces Rotated in Depth", <i>In Proceedings of the International Conference on Artificial Neural Networks</i> , Vol. 1, pp. 353-358, Paris, France, October 9-13, 1995.	
X	62	Mauer, T., et al, "Tracking and Learning Graphs and Pose on Image Sequences of Faces", <i>Proceedings of 2nd International Conference on Automatic Face and Gesture Recognition</i> , October 14-16, 1996, pp. 176-181.	
X	63	Maybank, S. J., et al, "A Theory of Self-Calibration of a Moving Camera", <i>International Journal of Computer Vision</i> , 8(2), pp. 123-151, 1992.	
X	64	McKenna, S.J., et al, "Tracking Facial Feature Points With Gabor Wavelets and Shape Models, (<i>publication & date unknown</i>)", 6 pp.	
X	65	Okada, K., et al, "The Bochum/USC Face Recognition System", 19 pp. (<i>publication & date unknown</i>).	
X	66	Okutomi, M., et al, "A Multiple-Baseline Stereo", <i>IEEE Trans. on Pattern Analysis and Machine Intelligence</i> , Vol. 15, No. 4, pp. 353-363, Apr. 1993.	
X	67	Peters, G., et al, "Learning Object Representations by Clustering Banana Wavelet Responses", <i>Tech. Report IR-INI 96-09</i> , Institut fur Neuroinformatik, Ruhr Universitat, Bochum, 1996, 6 pp.	
X	68	Phillips, P. J., et al, "The Face Recognition Technology (FERET) Program", <i>Proceedings of Office of National Drug Control Policy, CTAC International Technology Symposium</i> , August 18-22, 1997, 10 pages.	
X	69	Pighin, F. et al, "Synthesizing Realistic Facial Expressions from Photographs", <i>In SIGGRAPH 98 Conference Proceedings</i> , pp. 75-84, July 1998.	
X	70	Roy, S., et al, "A Maximum Flow Formulation of the N-Camera Stereo Correspondence Problem", <i>IEEE, Proceedings of International Conference on Computer Vision</i> , Bombay, India, Jan. 1998, pp. 1-6.	
X	71	Sara, R. et al "3-D Data Acquisition and Interpretation for Virtual Reality and Telepresence", <i>Proceedings IEEE Workshop Computer Vision for Virtual Reality Based Human Communication</i> , Bombay, Jan. 1998, 7 pp.	
X	72	Sara, R. et al "Fish-Scales: Representing Fuzzy Manifolds", <i>Proceedings International Conference Computer Vision, ICCV '98</i> , pp. 811-817, Bombay, Jan. 1998.	
X	73	Sara, R., et al, "On Occluding Contour Artifacts in Stereo Vision", <i>IEEE, Proceedings of International Conference Computer Vision and Pattern Recognition</i> , Puerto Rico, 1997, 6 pp.	
X	74	Steffens, J., et al, "PersonSpotter - Fast and Robust System for Human Detection, Tracking, and Recognition", <i>Proceedings of International Conference on Automatic Face and Gesture Recognition</i> , 6 pp., Japan - April 1998.	
X	75	Theimer, W. M., et al, "Phase-Based Binocular Vergence Control and Depth Reconstruction using Active Vision", <i>CVGIP: Image Understanding</i> , Vol. 60, No. 3, Nov. 1994, pp. 343-358.	

Examiner Signature		Date Considered	11/17/04
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<div style="display: flex; justify-content: space-between;"> <div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; transform: rotate(-45deg); display: inline-block;"> 21 </div> <div> Substituted for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets necessary) </div> </div> </div>			COMPLETE IF KNOWN	
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			First Named Inventor	Ho et al.
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			Examiner Name	Unknown
SHEET 4	OF 4	Docket Number	EYEM1360	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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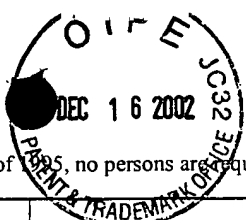
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✓		6,011,562		Gagné	01-04-2000	

FOREIGN PATENT DOCUMENTS								
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		PCT	WO99/53443		Eyematic Interfaces, Inc.	10-21-1999		

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✓		Notification of Transmittal of the International Search Report or the Declaration, International Search Report for PCT/US02/23973, mailed 18 November 2002	
✓		VALENTE, Stephanie et al., "A Visual Analysis/Synthesis Feedback Loop for Accurate Face Tracking", Signal Processing Image Communication, Elsevier Science Publishers, Vol. 16, No. 6, February 2001, pages 585-608	
✓		YANG, Tzong Jer, "Face Analysis and Synthesis", June 1, 1999, Retrieved from Internet, http://www.cmlab.csie.ntu.edu.tw/ on 25 October 2002, 2 pg.	
✓		YANG, Tzong Jer, "VR-Face: An Operator Assisted Real-Time Face Tracking System", Communication and Multimedia Laboratory, Dept. of Computer Science and Information Engineering, National Taiwan University, June 1999, pgs.1-6	

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Examiner Signature		Date Considered	5/16/04
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